



**Supplemental Figure S8. CpG-STAT3ASO activates DCs while reducing Treg percentage in treated mice.**

(A-B) Intratumoral injections of CpG-STAT3ASO activate DCs and reduce Treg percentage in PPS tumor-draining lymph nodes. C57BL/6 mice with established subcutaneous (SC) PPS tumors were treated using IT injections of 5 mg/kg of CpG-STAT3ASO, STAT3ASO or CpG-scrON every other day for six times. (A) The surface expression of MHC class II (left) and costimulatory molecules CD40 (middle) and CD80 (right) on DCs was assessed using flow cytometry. Bar graphs summarizing results from each group of mice are shown ( $n = 6$ ); means  $\pm$  SEM. (B) Percentage of Tregs in tumor-draining lymph nodes after treatment using various oligonucleotides. Percentage of CD3<sup>+</sup>CD4<sup>+</sup>FOXP3<sup>+</sup> is shown; means+SEM ( $n = 6$ ).

(C-E) Systemic administration of CpG-STAT3ASO improves the ratio of effector (CD8<sup>+</sup>) to regulatory T cells in the prostate tumor microenvironment. C57BL/6 with established bone-localized RM9 tumors were treated using IV injections of 5 mg/kg of CpG-STAT3ASO, STAT3ASO or CpG-scrON every other day for six times. Mice were then euthanized, tumors were harvested and analyzed using flow cytometry. Percentage of tumor-infiltrating CD8<sup>+</sup> T cells (A), regulatory T cells (B) and the ratio of CD8 T cells to Tregs (C) are shown; means+SEM ( $n = 6$ ).